



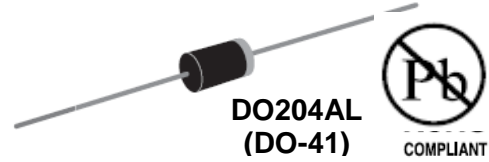
GENERAL PURPOSE SILICON RECTIFIER

1N4001~1N4007

General Purpose Silicon Rectifier

Features

- Low forward voltage drop
- Low leakage current
- High forward surge current capability
- High temperature soldering guaranteed 260°C/10 seconds
/.0375" (9.5mm) lead length
- RoHS and REACH Compliant



Mechanical Data

Case:	DO-41, transfer molded plastic
Epoxy:	Meets UL 94V-0 flammability rating
Terminals:	Plated axial leads, solderable per MIL-STD-202E, Method 208C
Polarity:	Cathode indicated by color band
Mounting position:	Any
Weight:	0.012 Ounce, 0.33 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Max RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
IF(AV)	Max Average Forward Rectified Current	1.0							A	.0375" (9.5mm) lead length at $T_A=75^{\circ}C$
IFSM	Peak Forward Surge Current	30							A	8.3ms single half sine-wave (JEDEC)
IR(AV)	Max Full Load Reverse Current	30							μA	Full cycle average .0375" (9.5mm) lead length
TJ, TSTG	Operating and Storage Temperature Range	-50 to +150							$^{\circ}C$	

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.1							V	IF(AV)=1.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	$T_A=25^{\circ}C$
		50								$T_A=100^{\circ}C$
CJ	Typical Junction Capacitance	15							pF	At 1MHz, reversed voltage of 4V
Rθ-JA	Typical Thermal Resistance	50							$^{\circ}C/W$	Note 2

Note:

1. Single phase, half wave, 60Hz, resistive or inductive load. Derate current by 20% for capacitive load
2. Thermal resistance from junction to ambient at .375" (9.5mm) lead length, PCB mounted with copper pad area of 0.2" x 0.2" (5x5mm).

3. Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

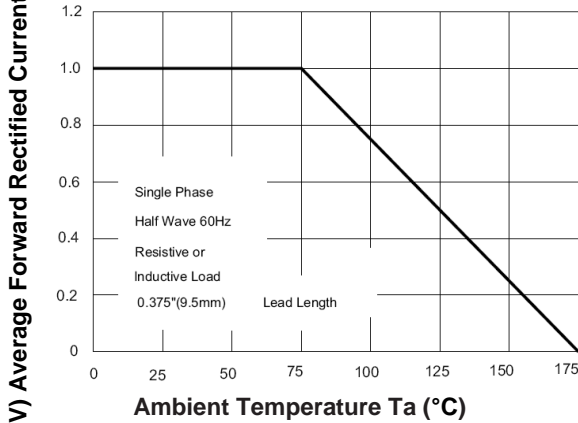


Fig.2- Max. Non-Repetitive Forward Surge Current

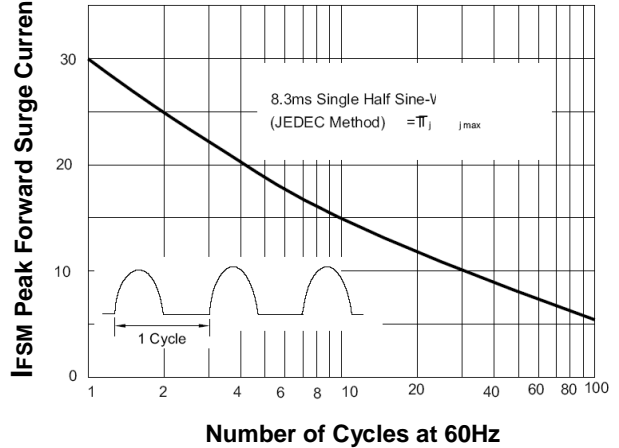


Fig.3- Typical Instantaneous Forward Characteristics

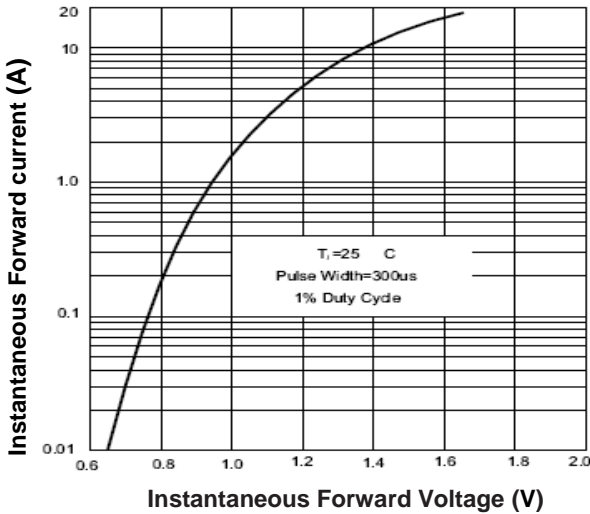


Fig.5- Typical Reverse Characteristics

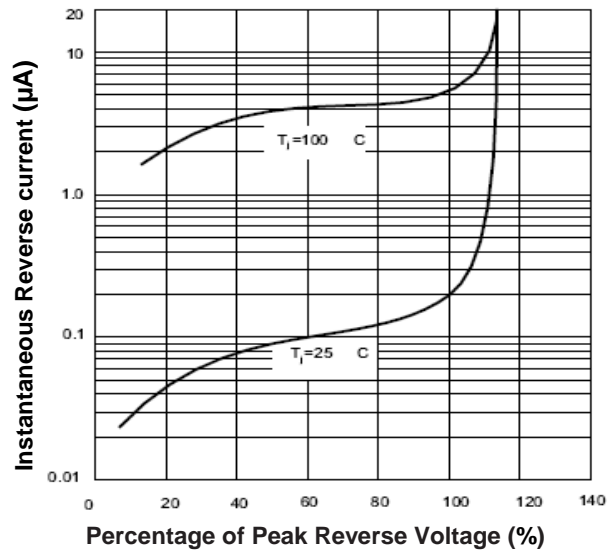
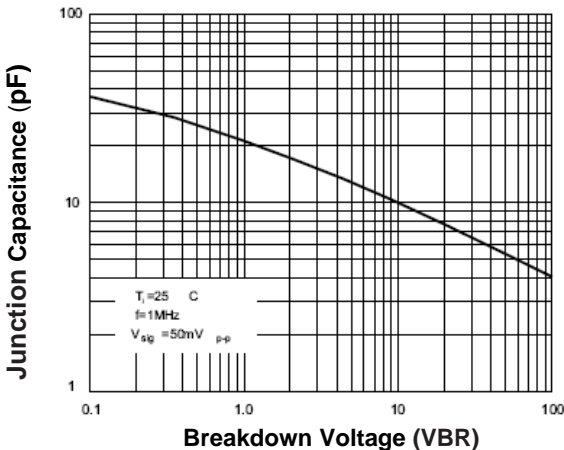
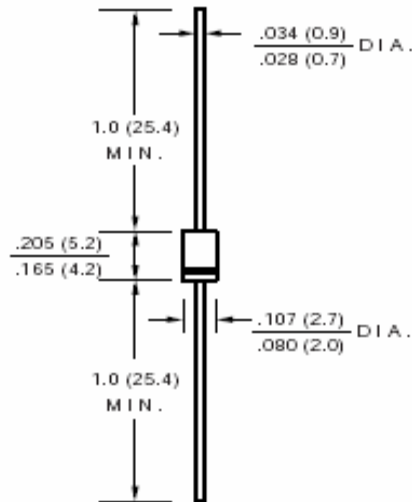


Fig.6- Typical Junction Capacitance



Dimensions in inch (mm)

**DO204AL
(DO-41)****Contact us:****US HEADQUARTERS****MEI SEMI INC.**

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